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Host a Website on Amazon S3



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Introducing Today's Project!

What is Amazon S3

Amazon S3 is a Serverless storage service by Aws with high durability, availability and scalability. It stores data in the form of objects from 0bytes to 5TB file size, hosts static websites. These amongst many other features make it very useful.

How I used Amazon S3 in this project

In today's project I used S3 to host a static website. Thus sites containing webpages, some graphics and client-side scripts which render in a users browser, this reduces load on servers since the processing happens in the clients browser

One thing I didn't expect in this project was...

WOOHOO.. I was not expecting the secret missions but it was worth it. I gained some practical experience with presigned URL's

This project took me...

This project took approximately 45mins



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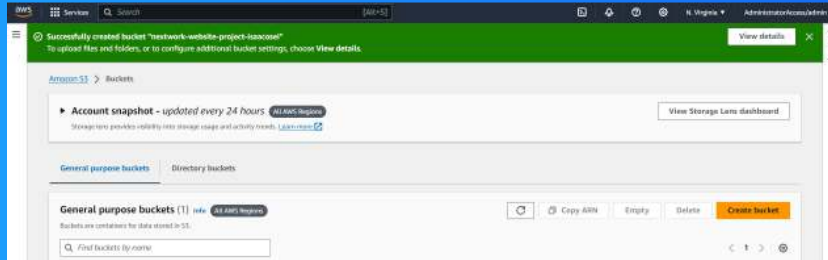
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How I Set Up an S3 Bucket

Creating an S3 bucket took me just 2 minutes

The Region I picked for my S3 bucket was US East (N. Virginia) us-east-1, because it's closest to me and will offer low latency and improved data transfer speeds

S3 bucket names are globally unique! This means that no two buckets can have the same name across all AWS accounts and regions



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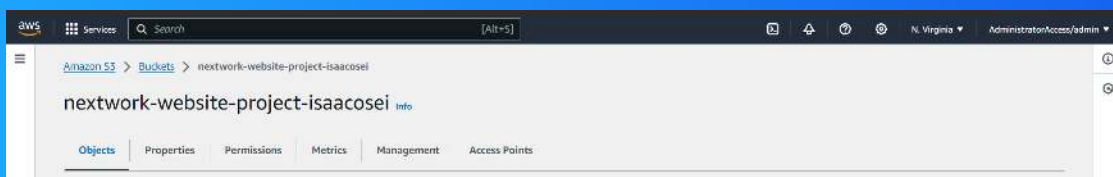
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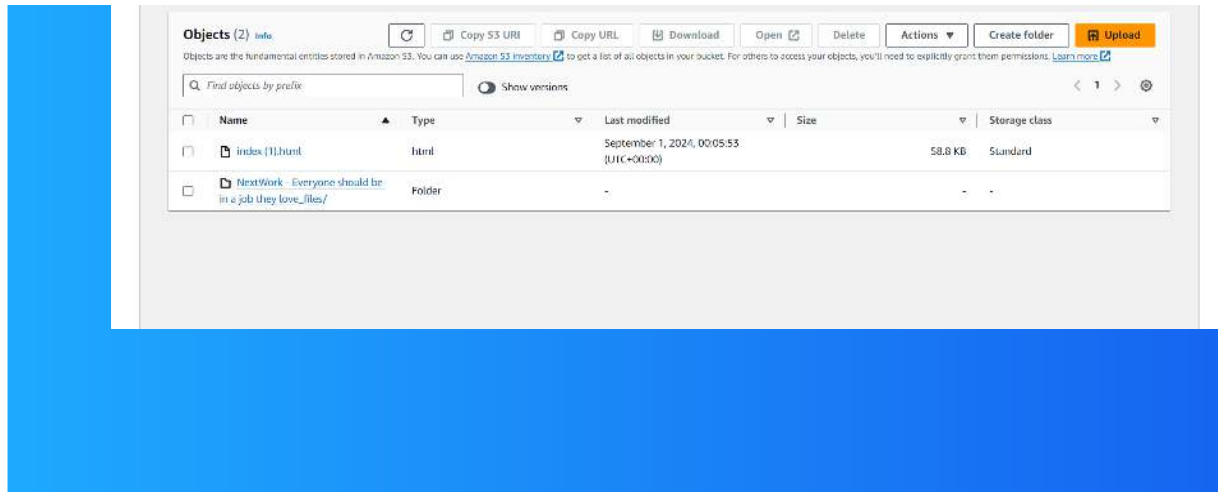
Upload Website Files to S3

index.html and image assets

I uploaded two files to my S3 bucket - they were namely an index.html which serves as our static websites main page and a folder containing some client-side scripts and images.

Both files are necessary for this project as the index.html serves as the frontpage or welcome page seen on most websites and the folder contains the client-side scripts, css and images or thumbnails that render on the Welcome page





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Static Website Hosting on S3

Website hosting means making our created website accessible to the general public.

To enable website hosting with my S3 bucket, I navigated to the Properties tab from here I scrolled down to Static website hosting. Clicked to edit the settings, enabled static website hosting and also specified the name i gave to my frontpage.

Access Control Lists (ACL)

An ACL is a set of rules that enables us set fine grained(granular level) permissions or access over individual objects in a bucket. I enabled ACLs for this bucket.

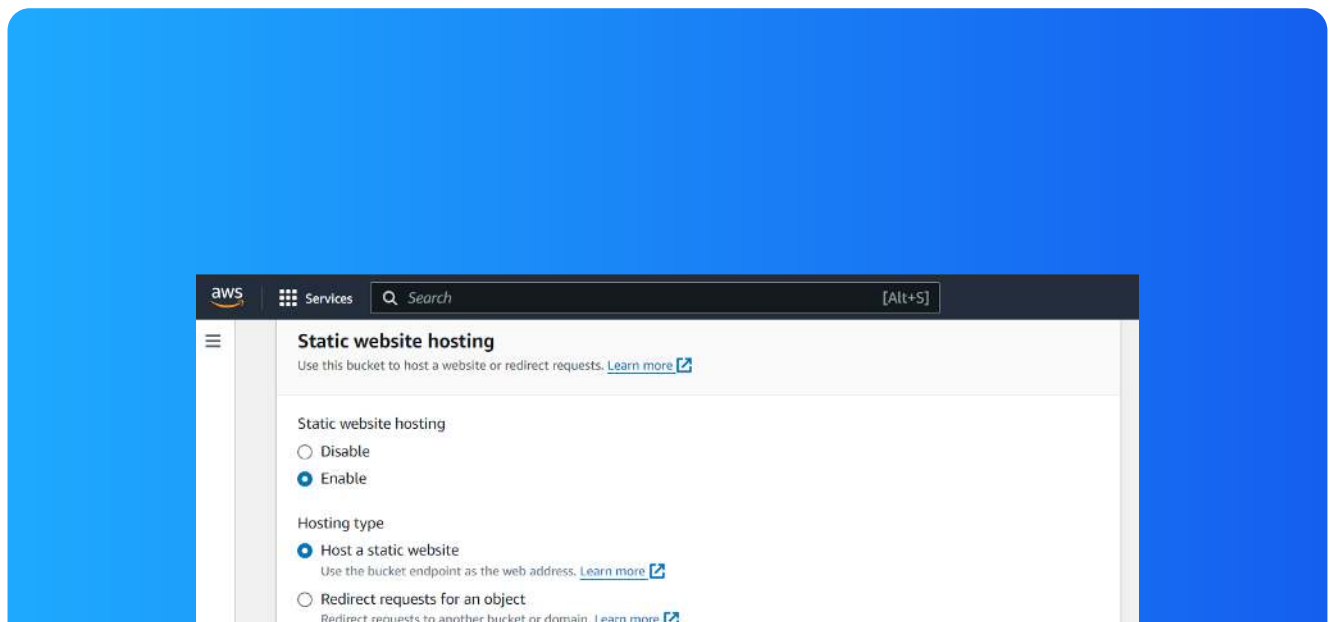


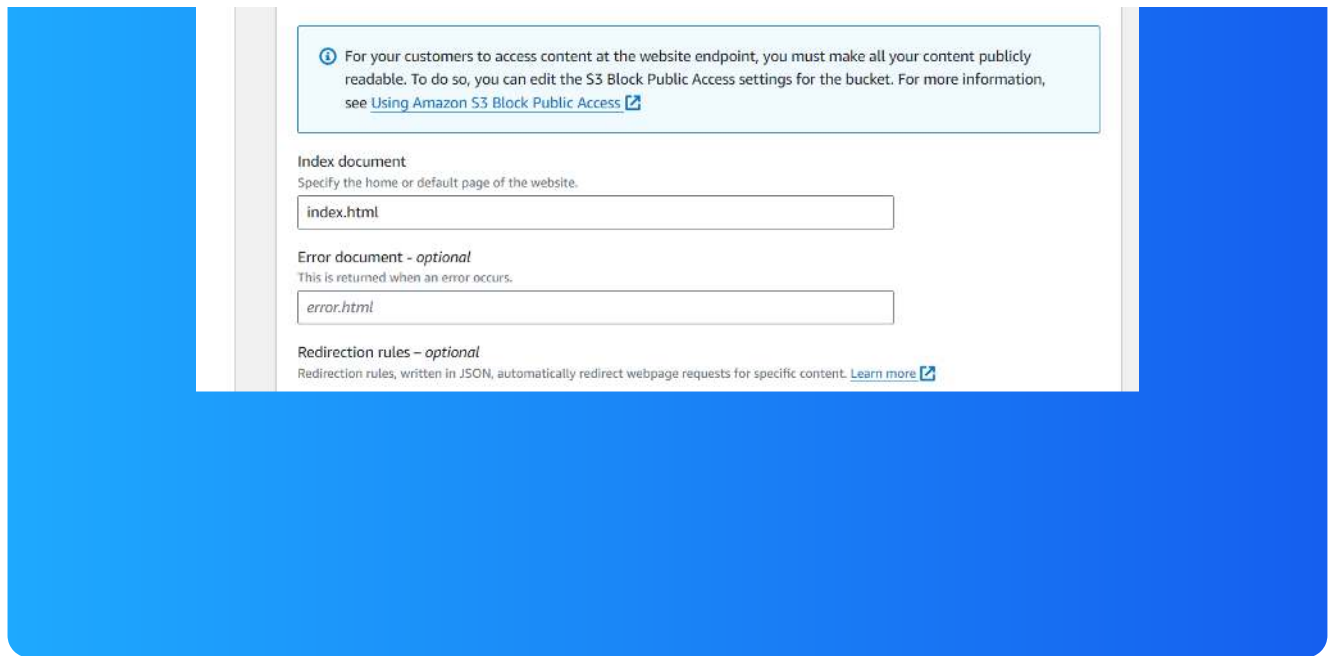
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Bucket Endpoints

Once static website is enabled, S3 produces a bucket endpoint URL, which is used to access the website or resource from a users browser.





For your customers to access content at the website endpoint, you must make all your content publicly readable. To do so, you can edit the S3 Block Public Access settings for the bucket. For more information, see [Using Amazon S3 Block Public Access](#).

Index document
Specify the home or default page of the website.

Error document - optional
This is returned when an error occurs.

Redirection rules - optional
Redirection rules, written in JSON, automatically redirect webpage requests for specific content. [Learn more](#)



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An error!

When I first visited the bucket endpoint URL, I saw an error page with status code 403 indicating that the server understands the client's request thus S3 is hosting the static website but refuses to authorize public access to the buckets contents

The reason for this error was because we had enabled public access to our S3 bucket but not it's contents or the objects in it. And thus users could only see the bucket.

403 Forbidden

- Code: AccessDenied
- Message: Access Denied
- RequestId: 3H1QJWBFT6NFPV84
- HostId: 65s4XLuAhUsS/znMz/TKz28aNZuijKQqAgRp+U3bAGvdtbk2XuRnubMXiayoaxg3fV427dMUhBztZhSfQhHnc7K8DF290PVAO9ulYH8/pGg=

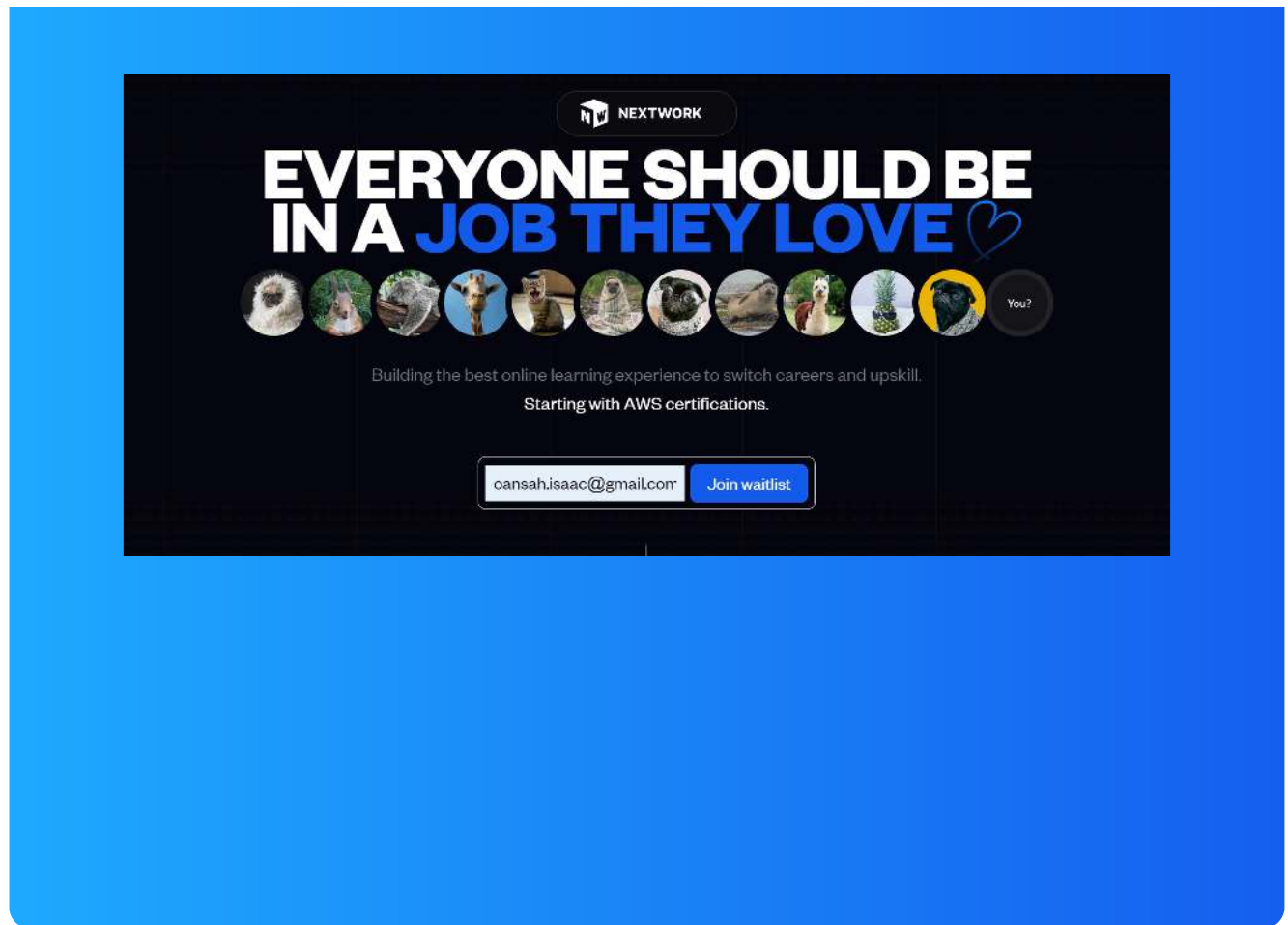


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Success!

To resolve this connection error, I visited the objects tab, selected all the objects i want to make public. I then selected the Actions tab and selected "Make public using ACL" , lastly i selected make public to render the website.



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